PART 5. Strategies to maintain quality of place

5.1 Design or retrofit streets for human scale

(Important companion strategy: 1.1 Contain development within limited growth area boundaries***)***

Objective: To promote development that is compact, highly livable, and in an environment friendly to walking and bicycling.

Description: "Human scale" means that a developed area is catering to the innate human senses of sight and sound, to the innate emotional needs for security, privacy, and human interaction, and to the innate physical capacity of self-locomotion – that is, walking. Everything is scaled and arranged to be compatible with those human characteristics.

There are several well understood rules to achieve human scale. The first has to do with area: a neighborhood or a mixed-use center is about ½-mile across, encompassing 125-150 acres. A second is that open space is within ¼-mile of every home. A third rule is that compatible destinations of value to residents are within ¼- to ½-mile of most residents, along safe pathways (usually within the street right-of-way). A fourth rule is that the street system is reasonably interconnected (see **1.5 Interconnect the local street system**) to create multiple pathways. A fifth rule is that in residential areas the street network is arranged so that it does not serve as a short cut for through traffic.

And the sixth rule has to do with the street itself. It should be part of an "outdoor room." The cross-section of the outdoor room for a residential neighborhood looks like this:

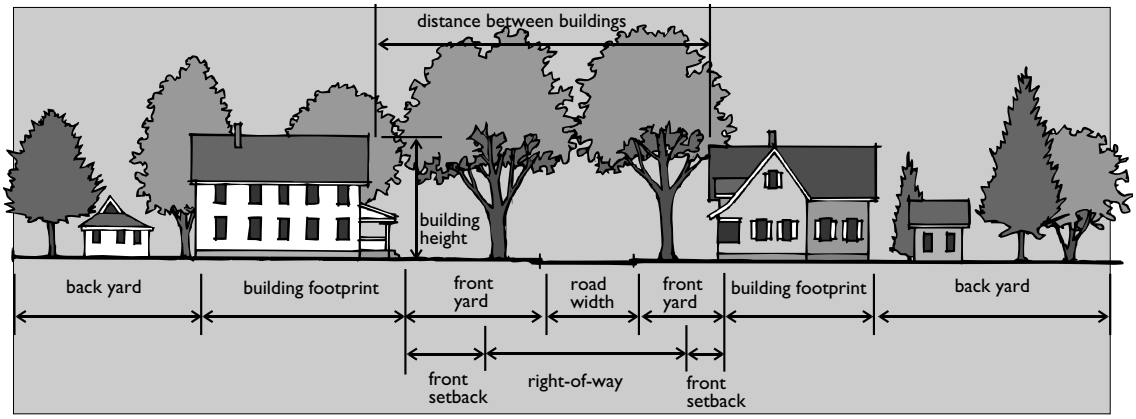

Figure B-8. Cross-section of an "outdoor room"

The arrangement of elements within the right-of-way, the esplanade with street trees, the front yard setbacks, the front wall of the homes, and the back yards achieve several things: a ratio of width-to-height that creates a welcome sense of enclosure, a continuum from public to semi-public/semi-private space in the front of the homes, and a private space in the rear. See also Figure 3-6 in chapter 3.

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The key to this strategy is to build dimensional standards into zoning and subdivision ordinances that allow the creation of these spaces. A 50-foot right-of-way that includes a 24-foot paved width, 8-foot green planting strips or esplanades, and a 5-foot sidewalk on at least one side, combined with 15-20 foot front yard setbacks, will enable the room to be built. At 3 to 5 dwelling units per residential acre, this leaves ample backyard space for privacy.

5.2 Retrofit streets and highways using flexible, "context sensitive" design

Objective: To develop components of the transportation system in a way that fits the physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility.

Description: Context sensitive solutions (CSS) is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility.[1]

CSS can best be applied by incorporating flexible design standards along local streets or rural arterials into order to creatively preserve features of importance to the community's quality of life, including landscape, architectural, special land use, downtown, and other features. When applied along state highways, it is essential to (1) have identified the special features in the community's comprehensive plan and (2) consult early with MaineDOT in scoping or similar sessions. It is common for towns and MaineDOT to enter into a formal agreement that will specify the standards and assign maintenance responsibilities.

Flexible design can be applied to a range of roadway standards, the most common of which are:

- Lane and shoulder width. The use of 11' lanes is acceptable in urban areas where right-of-way and existing development are controlling factors provided alignment and safety records are satisfactory. Lanes 10' wide are acceptable on low-speed facilities (<30 mph). Lanes 9' wide are appropriate on low-volume roads in rural and residential areas (ADT<400). Shoulder widths should be a minimum of 4' for two-lane roadways.
- Horizontal clearances. Horizontal clearance from curb to face of object should be 1' minimum in urban areas. In rural areas, clear zones may be limited to 30' if previous experience with similar projects or designs indicates satisfactory performance.
- Level of service (LOS). A community may decide through public involvement that a lower LOS than normally provided for roadways or intersections is acceptable. Lesser LOS rates may be used for certain recreational routes or for environmental or land use planning reasons.
- Sight distance. It is permissible to use the lowest recommended stopping sight distance in the range of values provided. Additionally, communities, in collaboration with MaineDOT, may consider lowering the design speed for an entire corridor.

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[1] Source - FHWA

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Communities should collaborate with MaineDOT any time flexible design standards are being considered. They can also review AASHTO and MaineDOT Design Guide standards to understand the full range of flexible design standards available.

Figure B-9.
Example of Context Sensitive Design

This example shows a hypothetical treatment of the upgrade of a Route 1 intersection in downtown Searsport, taking into account the historic downtown setting of the community.

Context Sensitive Design

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5.3 Institute traffic calming measures

Objective: To slow traffic speed in residential and other speed-sensitive areas.

Description: Traffic calming is the combination of primarily physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non motorized street users. Traffic calming measures should only be used on neighborhood or local street networks. Traffic calming measures should not be used on major collectors, arterials, or roadways where the posted speed limit is 45 mph or greater.

Traffic calming measures cover a broad range of categories and features. Applicable measures are summarized by category.

- Vertical Measures. These measures are designed to slow traffic and include speed humps, speed tables, and raised intersections. Speed humps and speed tables are generally the cheapest forms of traffic calming but can be undesirable due to noise and impacts on emergency vehicles.

- Horizontal Measures. These measures reduce vehicle speeds as well as enhance movement and safety for pedestrians. Horizontal measures include chicanes, offset intersections, and lateral shifts in roadway geometry. These are higher cost forms of traffic calming measures as they involve changes in curbing and drainage.

- Roadway Narrowing measures. These measures include narrowings, neckdowns, pinch points, islands, medians, and edge treatments. Roadway narrowing measures can be accomplished with or without physical changes to the roadway.

- Intersections. These measures include roundabouts and mini-circles (not to be confused with large traffic circles found on some high volume roads). These are the highest cost traffic calming measures, but often provide the greatest benefit by reducing the number of travel lanes and providing a more constant traffic flow.

- Streetscaping. These measurements include creating gateways, landscaping, pavement colors and textures, and street trees. Streetscaping can have a positive affect on vehicles speeds by enhancing the visual aspects of a neighborhood or local street.

A good reference for traffic calming is *Traffic Calming: State of the Practice, ITE/FHWA, August 1999*. A number of traffic calming designs are presented in Figure B-10 on the following pages.

Figure B-10. Sampling of traffic calming designs